

(c) Remarks:

This application has been reviewed in light of the final Office Action dated December 23, 2009. Claims 12, 14-16, 21 and 22 are presented for examination, with claim 12 being in independent form. Claim 12 defines still more clearly what Applicants regard as their invention. Support for claim 12 may be found in Exemplified Compound numbers X-25 and X-31 in Examples 1 and 5, respectively. Support for new claim 22 is found in Examples 2, 139 and 142. Applicants submit that no new matter has been added. Favorable consideration is requested.

Claims 12-20 were rejected as either anticipated by or as obvious over Robello '787. Claims 12-15 were rejected as anticipated by Burn '463. Claims 16-21 were rejected as obvious over Burn '463 in view of Kamatani '216 or further in view of Fukuda '031. Claim 21 was rejected as obvious over Robello '787 in view of Kamatani '216. The grounds of rejection are respectfully traversed.

Applicants would like to briefly review certain key features and advantages of the present claimed invention prior to addressing the grounds of rejection.

The compounds set forth in amended claim 12 of the instant application each have a moiety in which three fluorenes are linked. Phenyl group(s) are attached to both ends or one end of the moiety and a phenyl group is further attached to the 2-position of the phenyl group.

The present inventors have discovered that in a light-emitting layer of an organic light-emitting device using a red-phosphorescent material as a guest material, a compound in which a number of fluorenes are linked is useful as a host material. Examples of such compounds are described in Examples 1 and 5 of the instant application. When a

plurality of fluorenes are linked, the bandgap of the compound material is narrowed. Therefore, such a compound can be desirably used as a host with respect to a guest material which emits red light. A compound containing a single fluorene group exhibits a broad bandgap and cannot be practically used as a host when a layer emits red light. The present inventors have discovered that a host material in which only two fluorenes are linked likewise exhibits a broad bandgap and is not suitable for use with respect to a guest material which emits red light.

Robello '787 discloses compounds with a general formula providing a single fluorene as in paragraph [0019] on page 3. Robello also discloses a general formula in which phenyl groups, each having a phenyl group at the 2-position thereof, are bonded to the both ends of "A" at paragraph [0020] of page 3. Furthermore, Robello discloses a structural formula of an iridium complex that emits red light in which a phenylisoquinoline is shown as a ligand ([0027]). Moreover, Robello teaches using the compound disclosed therein as a host material with respect to a guest material that causes phosphorescence ([0028]).

Firstly, the compounds disclosed in Robello have a single fluorene. Accordingly, one skilled in the art is not taught the structure of the compounds set forth in the amended claims of the instant application in which a plurality of fluorenes are linked. Robello merely discloses in [0020] on page 3 a compound in which "A" represents a single fluorene and does not disclose linking a plurality of fluorenes, nor the benefits thereof. If the compound disclosed in [0020] on page 3 of Robello is used as a host material for red light emission, then, since the compound has a broad bandgap, it is not effective as a host.

Furthermore, if one skilled in the art seeks to narrow the bandgap of the compound of Robello, then other unknown substituent(s) must be attached to the phenyl group having a phenyl group at the 2-position thereof. Robello merely teaches that general formulae 1a and, 1b set forth in the claims may have substituents and only a single fluorene, not plural fluorenes, is mentioned as an example of A. Therefore, the artisan would not understand how to modify Robello to act as an effective host material in a layer containing a phosphorescent guest material emitting red light.

The Amendment should be entered, the claims allowed and the case passed to issue.

Applicants' undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our address given below.

Respectfully submitted,

/Peter Saxon/
Peter Saxon
Attorney for Applicant
Registration No. 24,947

FITZPATRICK, CELLA, HARPER & SCINTO
1290 Avenue of the Americas
New York, New York 10104-3800
Facsimile: (212) 218-2200